

REMARKS

Status Summary

In this amendment, claims 83-88 are added, and no claims are cancelled. Therefore, claims 1-10, 48-57, and 79-88 will be pending.

Claim Rejections 35 U.S.C. § 103

Claims 1, 2, 5, 10, 48, 49, 52, 57, and 79-82 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,923,659 Curry et al. (hereinafter, "Curry"). This rejection is respectfully traversed.

The Present Invention

The present invention, as claimed in independent claims 1 and 48, includes a method and an SS7/IP user part message communicator that receive SS7 user part messages at an STP, encapsulate the SS7 user part messages in IP packets, and send the IP packets from the STP to another network element over an IP network. All of the steps required to receive, process, and encapsulate user part messages are performed at an STP. Performing such processing at an STP eliminates the need for stand-alone protocol converters as disclosed in Curry and in the background section of Applicants' specification.

On pages 2 and 3 of the Official Action, the following is stated:

Curry et al. does not expressly disclose performing the encapsulation of an SS7 packet and the transmitting of the newly encapsulated packet at the signal transfer point. However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine

the functions of the Internet module with the functions of the signal transfer point. One would have been motivated to do this because it would streamline the setup, thus making the system more compact in reducing the number of components needed to make the system. (See page 2, line 22 - page 3, line 3 of Official Action dated August 18, 2003.)

Applicants respectfully submit that this conclusion of obviousness is flawed because (1) this statement fails to support a prima facie case for obviousness as required by MPEP § 2142, (2) the conclusion is not factually supportable because it ignores one of the primary considerations in STP design of reliability, and (3) even assuming that a prima facie case of obviousness has been established, the Affidavit of Venkataramaiah Ravishankar and documentation attached hereto support a nexus between commercial success of the IP7 product line and the claimed invention.

Paragraph 2 of the Official Action Fails to Establish a Prima Facie Case of Obviousness

In MPEP § 2142, the following is stated:

To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why an artisan would have found the claimed invention to have been obvious in light of the teachings of the references (Emphasis Added.) (See MPEP § 2142 (quoting Ex Parte Clapp, 27 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985)).

As admitted in paragraph 2 of the Official Action, the teaching to combine the STP and the Internet module of Curry is not found in Curry ("Curry does not expressly disclose performing the encapsulating of an SS7 packet and transmitting the newly encapsulated packet at the signal transfer point.") (See Paragraph 2 of Official Action dated August 18, 2003.) However, as quoted above, the Official Action concludes that

"it would have been obvious to a person of skill in the art at the time of the invention to combine the functions of the Internet module with the functions of the signal transfer point. One would have been motivated to do this because it would streamline the setup, thus making the system more compact in reducing the number of components needed to make the system." (See Paragraph 2 of Official Action dated August 18, 2003.)

The statements in Paragraph 2 of the Official Action fail to provide "a convincing line of reasoning" as to why an artisan would have found the claimed invention to be obvious as required by MPEP Section 2142. The reasons for the conclusion of obviousness in the Official Action are that combining the Internet module of Curry with the STP of Curry would make the system more compact and reduce the number of components in the system. However, there is no support in the Official Action or in the prior art for the conclusion that an artisan in the field of STP design would have been motivated to "make the system more compact" or "reduce the number of components needed to make the system." Curry does not teach compactness or reducing the number of components as STP design features. Moreover, the Examiner has not presented any prior art or a convincing line of reasoning based on the cited prior art that indicates that an ordinary STP designer would be motivated by compactness or reducing the number of components to combine the Internet module of Curry with the STP of Curry. Accordingly, because the Official Action fails to set forth a prima facie case for obviousness as required by MPEP § 2142, for this reason alone, the conclusion of obviousness cannot be supported.

The Conclusion of Obviousness in the Official Action is Incorrect, Even Assuming that
the Official Action Sets Forth a Prima Facie Case of Obviousness

As indicated above, in the Official Action, the reasons for the conclusion of obviousness are (1) streamlining the setup, (2) making the system more compact, and (3) reducing the number of components needed to make the system. One of the primary concerns in STP design is reliability. Adding SS7 to IP conversion functionality for user part messages to an STP potentially decreases reliability due to the inherent unreliability of IP networks. Because of the unreliability of IP networks, it is respectfully submitted that a person of skill in the art would be led away from adding such functionality to an STP.

In support of the statement that reliability is a primary concern in STP design, Applicants have attached a news article from Telephony magazine dated July 8, 1991, illustrating the consequences of STP failure (See Exhibit A). The article is entitled "STP Failures Plagued the Network Problems Traced to DSC Upgrade." The article discusses a failure of a DSC signal transfer point (STP) that caused a major telecommunications network outage. The failure was caused by a software upgrade. Adding SS7 over IP conversion functionality to an STP for converting user part messages to and from Internet protocol requires both a software and a hardware upgrade to an STP. Because such software and hardware upgrades inherently affect the reliability of the STP, it is respectfully submitted that a person of skill in the art at the time the invention was made would be led away from adding this functionality to the STP.

Nexus Between Claimed Invention and Commercial Success

In the Amendment dated June 27, 2003, Applicants submitted an email showing \$24 million in sales of the IP7 equipment as evidence of commercial success of the claimed invention. In Paragraph 13 of the Official Action dated August 18, 2003, the following is stated:

In response to Applicant's argument that commercial success of Applicant's IP7 equipment is additional evidence of the non-obviousness of encapsulating SS7 messages at the STP, the Examiner contends that the Applicant has not established the nexus between the claimed invention and evidence of commercial success. (See also MPEP § 706.03.)

The email submitted showing the sales of IP7 equipment does not prove that the claimed invention was the direct cause of those sales or that the invention even existed in those products. Many other factors could have contributed to the sale of IP7 equipment, such as aggressive advertising, effect sales people, low cut pricing, or even other features in those products that were more important than the claimed invention. (See Paragraph 13 of Official Action dated August 18, 2003.)

In Demaco Corp. v. F. Vaughan Langsdorf Licensing Ltd., the Federal Circuit held that (1) the patentee bears the burden of establishing a prima facie case of nexus between commercial success and the merits of the patented invention; (2) the patentee meets this burden by showing that a thing (product or process) is commercially successful and that is the invention disclosed and claimed in the patent; and (3) once the patentee meets this burden, the burden shifts to the validity challenger to show that the success is due to other factors, such as advertising. (See Demaco Corp. v. F. Vaughan Langsdorf Licensing Ltd., 851 F.2d 1387, 1392 (7 U.S.P.Q.2d 1222, 1226) Fed. Cir. 1988), Cert. Denied, 488 U.S. 956 (1988).

Applicants respectfully submit that (1) the IP7 equipment is commercially successful, (2) the IP7 equipment embodies the invention disclosed and claimed in the patent, and (3) the Examiner has not provided any evidence that the commercial success is due to other factors such as advertising. With regard to the product being commercially successful, Applicants respectfully submit that the email attached to the Amendment dated June 27, 2003 indicating that the IP7 equipment resulted in over \$24 million in sales as of June 2000 indicates that the IP7 product line was commercially successful. Applicants have verified the sales figures and believe them to be accurate as of the date of the email. Subsequent sales have also occurred, and Applicants can provide evidence of those sales if the Examiner deems the subsequent sales figures necessary. The statement in the email that other competitors have signed agreements to place Tekelec's IP technology in their flagship products was believed to be accurate at the time it was made. However, subsequent research has indicated that some of these agreements were never finalized. Nonetheless, because the sales figures are accurate, it is respectfully submitted that these figures evince commercial success of Applicants' invention.

With regard to the requirement that the IP7 product line correspond to the claimed invention, Applicants have attached web page archives from Applicants web site from the summer of 2000. For example, in the article entitled "Signaling Gateway - Enabling Convergence of the Wireline, Wireless and Data Networks," (See Exhibit B.) Figure 1 illustrates an IP7 secure gateway, also referred to as a signaling gateway. The article states:

"The signaling gateway is a critical element required to bridge networks that speak different protocol languages. The IP7 secure gateway, for example bridges the ISUP and TCAP protocols between the CCS No. 7 and IP network, using the transport adaptation layer interface (TALI) which is currently being submitted to the Internet engineering task force (IETF)." (Emphasis Added.)

This statement and Figure 1 indicate that the IP7 secure gateway converts between SS7 and IP for ISUP messages.

With regard to the claim limitation that requires these functions to be performed at an STP, Applicants refer the Examiner to the attached document entitled, "IP7 Frequently Asked Questions." (See Exhibit C.) This document is also taken from an archive from Applicants' web site dated 7/11/2000. In this document, the following is stated, "The IP7 secure gateway can also operate as a fully functional STP including global title translations, gateway screening, and integration local number portability." (See page 2 of IP7 Secure Gateway Frequently Asked Questions Article in Exhibit C.) Finally, the Affidavit of Venkataramaiah Ravishankar attached hereto as Exhibit D indicates that the sales referenced in the email attached to the previous Official Action were of the IP7 Secure Gateway and IP7 Edge products. The IP7 Edge product is a scaled down version of the IP7 secure gateway designed for use at the edge of the network. (See page 2 of Exhibit E.) The IP7 Edge product, like the IP7 Secure Gateway, is a fully functional STP that converts SS7 user part messages to and from IP.

Thus, based on the attached Affidavit and documentation, Applicants respectfully submit that they have met the requirements of Demaco Corp. v. F. Vaughan Langsdorf of showing: 1) the IP7 Secure Gateway and Edge products are commercially successful and 2) the IP7 Secure Gateway and Edge Products are disclosed and claimed in the

patent because they are both STPs that contain SS7 to IP conversion functionality for user part messages. The burden should now shift to the Examiner to show that the success is due to other factors, such as advertising. The Examiner has not provided any evidence that the commercial success of the claimed invention is due to other factors, such as aggressive advertising. For this reason alone, Applicants submit that the commercial success overcomes the obviousness rejection.

Moreover, Applicants respectfully submit that the commercial success of the claimed invention was due to its ability to perform STP functions and SS7 over IP conversion functions for ISUP messages, rather than other factors, such as aggressive advertising. In support of this contention, Applicants submit an article entitled, "Orange Leaps Into IP" from December 20, 1999 issue of Telephony Magazine. (See Exhibit F.) Orange Telecommunications is one of the sales referenced in the email attached to the Amendment dated June 27, 2003 evincing commercial success of the claimed invention. The article indicates that Orange initially contacted Tekelec to purchase STPs. However, as Orange's signaling needs grew, Orange decided on "a new direction for its signaling needs." Rather than expand their network with additional STPs, [Orange] decided to replace the whole lot with an IP solution." (Emphasis Added.) (See page 1 of Exhibit F.) Thus, this article supports the conclusion that a telecommunications service provider decided to purchase a product corresponding to the claimed invention due its capability of combining STP functionality with SS7 over IP conversion functionality.

Finally, Applicants respectfully submit that the commercial success of the claimed invention is factually distinguishable from court cases that discount commercial

success due to aggressive advertising. In a recent decision, the Court of Appeals for the Federal Circuit upheld a lower court's decision that commercial success was due to a massive marketing and advertising campaign rather than the merits of the invention (See McNeil Inc. v. L. Perrigo Company, 337 F.3d 1362 (Fed. Cir. 2003)). For the Examiner's convenience, a copy of the McNeil opinion is attached hereto as Exhibit G. In distinct contrast of the present situation, the McNeil court found that McNeil had launched "a massive marketing and advertising campaign in connection with the launch of Imodium® Advanced product, obscuring any nexus that might have existed between the merits of the product and its commercial success." (Id. at 1368.) Applicants respectfully submit that there is no evidence of such a marketing campaign with regard to Tekelec's IP7 Secure Gateway product. Imodium® appears in television advertisements and is marketed directly to consumers. In contrast, in the telecommunications industry, products are typically marketed on web pages and in industry standard journals. Service providers typically contact equipment manufacturers with requests for proposal (RFPs) and requests for information (RFIs). Equipment manufacturers typically respond to such requests in writing indicating the capabilities of their products to meet such requests. As indicated in the attached Affidavit of Venkataramaiah Ravishankar, this is exactly the way that the sales of Tekelec's IP7 products occur. In addition, the attached article entitled "Orange Leaps into IP," indicates:

After requesting information on a new signal transfer point (STP), Orange decided on a new direction for its signaling needs. Rather than expand their network with additional STPs, [Orange] decided to replace the whole lot with an IP solution. (Emphasis Added.) (See Exhibit F.)

Thus, the attached article indicates that Tekelec's IP7 Secure Gateway product line was sold in this instance in response to a request from a customer for new STPs, rather than aggressive advertising. After learning of the merits of the IP7 product, the customer decided to buy \$11 million of IP7 Secure Gateway products, rather than conventional STPs. The fact that the customer originally requested STPs and changed its mind to buy IP7 Secure Gateways is strong evidence of a nexus between the commercial success and the claimed invention. There is no evidence that Applicants engaged any "massive marketing campaign" that would obscure the connection between the capabilities of the IP7 Secure Gateway product and the commercial success. Thus, for this additional reason, Applicants respectfully submit that a nexus exists between the claimed invention and the evidence of commercial success. Accordingly, based on the commercial success that resulted from the merits of the claimed invention, Applicants respectfully submit that the claimed invention is not obvious in light of the disclosure of Curry.

Claims 4 and 51 were rejected as unpatentable over Curry in view of U.S. Patent No. 5,173,897 to Schrodi et al. (hereinafter, "Schrodi"). This rejection is respectfully traversed.

As discussed above, Curry fails to teach or suggest the invention as claimed in independent claims 1 and 48. Schrodi likewise lacks such teaching or suggestion. A method for restoring the correct call sequence in ATM messages. Schrodi teaches allocating sequence numbers to ATM cells. There is no teaching or suggestion of incorporating SS7 over IP functionality for user part messages in an STP. In addition, the sequence numbers discussed in Schrodi are limited to ATM cells (See Abstract of

Schrodi ("Sequence numbers are allocated to the cells."). Adding sequence numbers to ATM cells constitutes physical layer sequence numbering, rather than application layer sequence numbering, as claimed. Moreover, there is absolutely no teaching or suggestion in Schrodi of adding such sequence numbers to SS7 over IP packets. Thus, for these additional reasons, the rejection of claims 4 and 51 as unpatentable over Schrodi should be withdrawn.

Claims 6-9 and 53-56 were rejected under 35 U.S.C. § 103(a) as unpatentable over Curry in view of U.S. Patent No. 6,328,267 to Valentine et al. (hereinafter, "Valentine"). This rejection is respectfully traversed.

As a preliminary matter, Applicants respectfully note that Valentine is not prior art to claims 6-9 and 53-56 under 35 U.S.C. § 103(a). The 35 U.S.C. § 102(e) date for Valentine is December 21, 1998. The present application claims the benefit of U.S. patent application no. 09/205,809 filed December 4, 1998 (now U.S. Patent No. 6,324,183) (attached hereto as Exhibit H). Applicants respectfully submit that claims 6-9 and 53-56 relate back to the original filing date of the parent application. For example, these claims relate to replacing various types of SS7 links with IP links. Support for these claims is found, for example, in Figures 1-7, and 10-14 of the '183 Patent. Performing such replacement for user part messages is also supported by column 13, lines 35-45 of the '183 Patent and by the fact that the Figures show IP gateways according to the invention connected to SSPs, which originate user part messages. Thus, because Valentine is not prior art under 35 U.S.C. § 102(e), the rejection of claims 6-9 and 53-56 as unpatentable over Curry in view of Valentine is improper and should be withdrawn.

Even assuming that Valentine could be considered prior art to the claimed invention, Applicants respectfully submit that the combination of Valentine and Curry fails to teach or suggest the invention claimed in claims 6-9 and 53-56. As indicated above, Curry fails to teach combining the functions of an SS7 signal transfer point and SS7 to IP conversion for ISUP messages as claimed in the independent claims. Valentine likewise lacks such teaching or suggestion. According to Valentine, global title translation can be performed to global title translate an IP address into an SS7 network address. There is no teaching or suggestion of performing SS7 to IP or IP to SS7 conversion functionality for user part messages in an STP. As is known to those of skill in the art, SS7 user part messages are routed based on point codes, rather than global title addresses as taught by Valentine. Global title routing is limited to SCCP messages, which are distinct from user part messages, such as ISUP messages. Thus, for this additional reason, the rejection of claims 6-9 and 53-56 as unpatentable over Curry in view of Valentine should be withdrawn.

New Claims

New claims 83-88 are proposed to be added. Support for claims 83-88 is found, for example, on page 30, line 23 through page 31, line 20 of the present specification. Because a Request for Continued Examination is being filed herewith, entry and consideration of the new claims is respectfully requested.

CONCLUSION

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

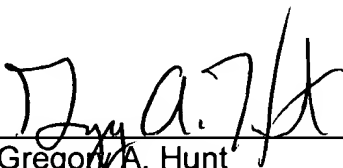
The Commissioner is hereby authorized to charge any fees associated with the filing of this correspondence to Deposit Account No. 50-0426.

Respectfully submitted,

JENKINS, WILSON & TAYLOR, P.A.

Date: November 19, 2003

By:



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1322/8 GAH/sed

- Exhibit A: Article entitled "SS7 Failures Plague the Network; Problems Traced to DSC Upgrade"
- Exhibit B: Article entitled "Signaling Gateway-Enabling Convergence of Wireline, Wireless, and Data Networks"
- Exhibit C: Article entitled "IP7 Frequently Asked Questions"
- Exhibit D: Declaration of Venkataramaiah Ravishankar pursuant to 37 C.F.R. § 1.132
- Exhibit E: Article entitled "Tekelec's IP7 Products"
- Exhibit F: Article entitled "Orange Leaps into IP"
- Exhibit G: McNeil Inc. v. L. Perrigo Company opinion
- Exhibit H: U.S. Patent No. 6,324,183